

into the veins are very different from those above described. The most striking manner of observing their action is by injecting them into the veins of an animal whose thorax has been previously opened, artificial respiration being performed. In these instances, the pulsations of the heart are *seen* to be arrested in from seven to ten seconds after the injection; and the irritability of this organ is so completely destroyed, that the application of the poles of a galvanic pile, a few seconds after death, does not produce any contractions. This sudden arrest of the action of the heart does not produce death so rapidly as does the stoppage of the pulmonary circulation; sensibility and respiratory movements continuing from two to three minutes after the contractions of the heart have ceased.—*Lancet*, from *Compte Rendu de l'Acad. des Sci.* No. 22.

## PATHOLOGICAL ANATOMY AND GENERAL PATHOLOGY.

8. *Ileo-cæcal Abscess, with Perforation of the Intestine and Groin.*—Mr. Ferrall presented to the Pathological Society of Dublin, the recent parts, in a case of this description. The patient, a young girl, was admitted into the Meath Hospital, with tumour in the right iliac region, about fourteen days after the first attack; suppuration of the tumour had then occurred; the bursting of the abscess was soon indicated by a copious discharge of purulent matter from the bowels; soon after this another tumour formed in the upper part of the thigh, separated from the former by a deep sulcus corresponding to Poupart's ligament, below which an opening occurred, through which pus and ultimately fecal matter was discharged. Mr. Ferrall exhibited the mode of communication between the abscess and opening in the groin; the fistula took a direction at first downwards, and afterwards upwards and inwards, the omentum adhered to the parietes of the abdomen and cæcum; the communication from the abscess into the intestine was by two small openings separated by a slip of mucous membrane, and resembling the appearance often seen in the integuments when an abscess opens by a slough.

An important peculiarity in this case was the mode in which the matter had made its way externally, namely, by perforation of the iliac fascia, and descent on the outside of the femoral vessels.

Mr. Ferrall also showed that in this case the communication with the intestine did not, as Dr. Burne supposes, take place through the appendix vermiformis, the appendix being free from disease. The perforation had taken place from the abscess into the intestine, being the third form of the disease formerly described by Mr. Ferrall in the *Edinburgh Journal*.—*Dublin Journal*, March and May, 1839.

9. *Ulceration of the Brain.* By GEORGE P. MAY, M. D.—Daniel Prior, ætat. 15, thrown from a horse, Jan. 17. On being visited two hours after the accident, was found to have received an extensive lacerated wound of the scalp, across the right parietal surface, by which the bone was denuded to a great extent. Considerable hæmorrhage from the wound took place, amounting to more than a pint in quantity. He retained perfect possession of his senses, and complained little of his head, but referred his sufferings to his elbow-joint, which appeared to have received a violent contusion. On the fourth day after the injury he was able to come down stairs, and exercise himself in the open air; by this period a great part of the wound had healed by the first intention. For three weeks every thing went on favourably, and the boy appeared to be the subject of little or no ailment. About the commencement of the fourth week symptoms of constitutional irritation began to manifest themselves; the pulse became quick, and the discharge assumed, for the first time, an unhealthy character; this condition continued, without much alteration, for six days, during which time he complained of pain of head.

Feb. 16th he became comatose, in which state he continued until his death, which took place the following day.

*Sectio capitis.*—The wound of the head had an unhealthy aspect. Around the denuded portion of bone, between the scalp and periosteum, was an accumulation of pus, of a very offensive character; a small piece of the bone was carious, and exhibited some dark-coloured lamella when broken up by the handle of the scalpel; this condition did not extend through the external table. On raising the calvarium two or three drachms of fœtid pus escaped. The dura mater and subjacent membranes of the right hemisphere were completely eroded in two places, one about the size of a shilling, situated immediately posterior to the Sylvian fissure, the other of smaller dimensions, nearer the occipital region; the ulcers extended about three lines into the substance of the brain; their bases were hard, their edges ragged, and coated with yellowish matter; the texture of the cerebral mass around the ulcers was apparently normal; a great quantity of lymph and pus was effused over the anterior lobe beneath the arachnoid membrane. The pia mater was highly injected, and the vessels of the convolutions, and the sinuses were much distended with blood. The whole of the left hemisphere was very vascular; the corpus callosum, septum and fornix, were in an advanced stage of softening; an excavation, the size of a pigeon's egg, was discovered in the posterior lobe, filled with fœtid matter. The appearance of the cerebellum, left hemisphere, and ventricles, was natural. The thoracic and abdominal cavities were not examined.

This case is very interesting, as illustrative of the ambiguity which so frequently invests diseases of the encephalon. Every tissue here appeared to be the seat of some morbid action. The membranes bore evidence of acute and extensive inflammation. The cortical substance was, in two places, eroded to some depth; and the internal parts of the brain exhibited that alteration of structure most usually considered to be the result of inflammatory action; but until within twenty-four hours of death, there was scarcely a symptom diagnostic of any of these lesions. Up to this period the patient retained perfect possession of all his faculties, mental and physical; there was no delirium, paralysis, convulsion, or contraction of the limbs, which has been regarded by some French pathologists as indicative of cerebral ramollissement. These, with most of the conditions symptomatic of cerebral and meningeal inflammation, were altogether absent. Dr. Abercrombie, in his valuable treatise, has detailed some cases similar in this particular, and represents "the danger of being guided by system in our diagnosis of affections of the brain, and the necessity there still is for extensive and careful observation of facts in regard to this class of diseases."—*Lancet*, April 13th, 1839.

10. *Red Appearance of the Internal Coat of Arteries.*—Mr. Hodgson read a paper before the Medical Section of the British Association, at their recent meeting at Birmingham, on this subject, in which he stated, that this appearance did not depend on inflammation in every instance, and from which it should be carefully distinguished. It might occur extensively, or in small patches, or in different parts of the same subject, presenting different shades of colour. It was found in subjects of all ages, in healthy as well as morbid coats, in the lining membrane of the heart, and of the veins, but less frequently in the latter. It may be found when blood is present in those cavities after death, or where they are completely empty. Mr. Hodgson related the experiments of Laennec and Andral, which proved that this red appearance might be communicated after death by immersing the vessels in blood. As to the efficient cause, he stated, that it might proceed from imbibition, in the same manner as we find the neighbouring membranes stained with bile from the gall-bladder and its ducts; the first changes towards decomposition and putrefaction might allow of it more readily. Some writers look on it in every instance as the result of inflammation; slight modifications of vitality may permit its occurrence during life, as we find it, where chronic inflammation has existed, giving rise to deposits of an atheromatous matter. When dependent on inflammation it will be found affecting the

inner coat only, but when on other causes it will often pervade the elastic or middle coat as well as the serous. Finally, he stated that it might be found depending on the co-existence of those causes which were capable of producing it singly.

Dr. Macartney thought that it was of importance to discriminate between the red appearances described by Mr. Hodgson and inflammation; they had a painted appearance, were devoid of tumefaction, and were most perfectly distinguished by being insusceptible of injection. There was, he stated, much analogy in the red patches observed on the pharynx and œsophagus in cases of hydrophobia; he remarked that these appearances might not depend on the putrefactive process, but be caused more by changes in the blood itself than in the solids. Dr. Macartney dwelt on the important part played by the effusion of coagulable lymph in the closure of arteries, independent of, and even previous to, inflammation.—*Athenæum*.

11. *On the Effects of the Human Milk on the Child during Menstruation.*—Mr. E. WILKINSON having frequently observed that human milk has a decidedly laxative effect on the child during the period of menstruation, he is led to conclude that it may not only prove injurious to the offspring at the time, but that it may also frequently be the means of laying the foundation of other infantile diseases. "It is a fact," he observes, "now pretty well ascertained, that whenever the mother's constitution is impaired (or only even slightly influenced) by either mental or physical causes, during the period of lactation, the secretion of milk is changed in quality, and a morbid effect is consequently produced on the constitution of the child from the physical changes it is supposed to have undergone. My attention was particularly directed to the consideration of this subject a short time ago, on observing a child of my own very much laxated from the cause here alluded to, as may be inferred from the subsequent account. On inquiry, I ascertained that not only this child, but also my two other children had been similarly affected whenever the mother menstruated during lactation. The stools which this child had were exactly like those of a sucking calf labouring under diarrhœa, both as regards colour, consistence, and smell. As to the appearance and colour of the stools, they presented that of a liquid mixture of chalk and ipecacuanha. They appeared to consist of a small portion of excrementitious matter dissolved (and as if well triturated) in a large proportion of serous fluid. The fœtor of them was excessive, and almost intolerable, and, as I thought, not dissimilar to that of the menstrual secretion itself. The youngest child had the breast until he was nineteen months old, and the mother menstruated regularly during the last seven months. She also menstruated regularly from the first month after her two first accouchements during the whole period of lactation. M. Donné has ascertained that human milk is a fluid holding in solution lactic sugar, salts, a small quantity of fatty matter, and of caseum; and, in suspension, a number of globules composed of butter, which are of various sizes, and soluble in ether. The first milk, or colostrum, contains, in addition, particular bodies, which M. Donné designates 'granular;' these latter do not disappear entirely before the end of the first month after delivery: they sometimes, however, continue beyond that time. M. Retzius, it would appear, has discovered free phosphoric and lactic acids in the menstrual blood; the acids hold the colouring matter in solution. Although I am no great advocate for medical theory and hypothesis, yet it is probable that, according to the recent discoveries of the composition of the human milk by Donné, and of the menstrual blood by Retzius, the former may be deprived of a considerable portion of its nutritive ingredients, and surcharged with saline matter; hence its purgative effect on the child. If this is really the condition of the milk during the menstrual period, it is evident that it will not only produce diarrhœa and nervous irritation, but that it will likewise prove defective in nutriment, and thus it may, indirectly as it were, lay the foundation for various infantile diseases. If, therefore, the precise condition and composition of the lactic secretion during menstruation could be ascertained, we might then, perhaps, discover the means of

preventing its morbid influence on the constitution of the child, provided it does actually produce such an effect upon it at the period."—*Lancet*, 27th July, 1839.

## MATERIA MEDICA AND GENERAL THERAPEUTICS.

12. *On the Mechanical Action of Tartarized Antimony.* By G. POLLI.—According to Giacomini the effects produced by the application of tartar-emetic to the skin do not in the least depend on its dynamic action, but on the mechanical action of its minute crystals. Hence the effect of emetic frictions on the economy must be quite different from that produced by the same salt taken internally. In proof of his opinion, Giacomini adduces the sharp angular form of the crystals and alleges that their action is increased by the addition of powdered sugar, that the same result will be produced by any other crystallized salt or even by glass, and that the aqueous solution applied in local baths causes no irritation. But, on the other hand, considering that the cutaneous efflorescence, produced by tartar emetic, invariably presents the same characters, that a similar eruption is frequently developed by sympathy in parts far distant from the seat of friction, such as the scrotum, neighbourhood of the anus, &c., and that pustulation follows when the ointment is simply spread on the skin, M. Polli inclined to the old opinion of its acting dynamically. To settle the question, he and several of his friends made a number of experiments of which the principal results were as follows: 1st. Tartar-emetic friction always produced a papular eruption, with tendency to pass into the pustular form, and in three, a similar affection or pruritus was observed at the genitals or anus. 2d. The eruption never appeared before the thirty-sixth or after the forty-eighth hour after friction. 3d. Simple friction, with cloths dipped in water, when performed where the sebaceous glands are prominent, produced in about half an hour, an eruption of rosy papulæ, without any tendency to become pustular or to suppurate; where the skin was smooth erythema only followed. 4th. The repeated application of local baths, made with a saturated aqueous solution of tartar-emetic, never produced any eruption. 5th. Ointments made with the same proportion of sulphate of potass, or glass, sometimes produced a slight papular eruption about two days after the experiment, but in the majority of cases had no such effect, and in no instance where the skin was smooth. The eruption was always proportional to the violence of the friction.—*Brit. and For. Med. Rev.*, July, 1839, from *Giornale delle Scienze Med. Chir.* No. 25.

13. *On the Exhibition of Remedies in the Form of Vapour.* By D. J. CORRIGAN, M. D.—That inhalation, as a remedial process, may obtain a fair trial, it is requisite,

1. That the apparatus should be simple in its construction, and easily kept in order.

2. That it should be capable of keeping up a supply of vapour for any length of time, and that the evolution of the vapour should be steady, and should be easily regulated.

3. That it should also furnish a sufficient supply of aqueous vapour, to prevent any irritation of the larynx or lining membrane of the air-tubes.

4. And most important of all, that its employment should entail neither trouble nor fatigue on the invalid.

I believe all these conditions are fulfilled in the following apparatus (*vide drawing*):—There is a light open iron-wire frame, about eighteen inches in height; at the bottom is a spirit lamp (A). At the proper height above it is an evaporating porcelain dish, about six inches diameter (B). Above this is a glass globe (C) with its neck downwards. In the neck of the globe is a cork (D) bored, and through the opening is drawn, moderately tight, a short plug of cotton wick, such as is used in a spirit-lamp; in the glass globe at (E) opposite